Navy Advancement Center Web site: http://www.cnet.navy.mil/netpdtc/nac/neas.htm

Advancement Handbook for Builder

PREFACE

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide advancement-in-rating examinations. The bibliographies (BIBs) together with this handbook form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the BU rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are <u>cumulative</u>; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the "Exam Expectations" section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

Prepared by
Navy Advancement Center Department,
Naval Education and Training Professional
Development and Technology Center

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Part 1

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain tool kit accountability and inventory
Knowledge you should have to perform this skill:	Identify tool kit nomenclature, tool usage, and inventory procedures to include the following: Tool kit contents Standard forms Reporting requirements
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Seabee Supply Manual, CBPAC/LANTINST 4400.3
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for conducting a tool kit inventory, completion of tool kit inventory sheets, and report requirements.

General BU Skill Area	Environmental Protection
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform hazardous material (HAZMAT) inventories
Knowledge you should have to perform this skill:	Recall the procedures for hazardous material (HAZMAT) identification, handling, and storage
References you should study to gain the knowledge you need to perform this skill:	Military Requirements for PO3, NAVEDTRA 12044, Chapter 7
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for identifying, handling, and storage of hazardous materials.

General BU Skill Area	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct concrete slump tests
Knowledge you should have to perform this skill:	Identify the requirements and procedures for performing a concrete slump test to include the following: • Size and dimension of a concrete test cone • Test cone rodding • Concrete layering • Measuring slump
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Engineering Aid Basic, NAVEDTRA 10696-A
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about proper testing for concrete slump using a test cone and rod, and actual measuring for the slump of concrete.

General BU Skill Area	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Place and interpret grade and site stake markings
Knowledge you should have to perform this skill:	Identify the procedures for leveling and grading equipment used at construction sites to include the following: • Transits • Elevation rods • Elevation markings • Engineer's tapes • Batter boards
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Engineering Aid Basic, NAVEDTRA 10696- A
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about grade and site stakes, elevations, and batter boards. Also, interpreting engineering tapes and stake markings and transit setup.

General BU Skill Area	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare materials for embarkation
Knowledge you should have to perform this skill:	Identify procedures and techniques used in preparing material for embarkation to include the following: • Planning • Packing lists • Mount-out boxes • Pre-positioned stocks and supplies
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 2, NAVEDTRA 12521 Embarkation Manual, COMSECOND/COMTHIRDNCBINST 3122.1, Annex C and E
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the individual aspect of embarkation, such as the proper planning techniques pertaining to landing force, group, and unit embarkation plans, material packaging and packing lists, and prepositioned stocks and supplies.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Compile Bill of Materials
Knowledge you should have to perform this skill:	Recall procedures for preparing forms for material quantity estimates to include the following: • Estimating worksheets • Material takeoff sheets • Check lists • Long lead items
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Seabee Planner's and Estimator's Handbook, NAVFAC P-405 Seabee Crew Leaders Handbook
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about preparing material quantity estimates utilizing estimating worksheets, material takeoff sheets and checklists, and long lead item identification.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Cut, bend, and place wire fabric and reinforcing steel in concrete forms
Knowledge you should have to perform this skill:	Identify material and techniques used to reinforce concrete and reinforcing steel to include the following: • Welded wire fabric • Reinforcing steel • Ties • Chairs
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Steelworker, Volume 2, NAVEDTRA 12530, Chapter 7
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about reinforcing concrete, such as reinforcing steel identification, placement, cutting, bending, ties, and cutting, bending, and placing welded wire fabric, and use of chairs.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Erect wooden, prefabricated metal and suspended scaffolding
Knowledge you should have to perform this skill:	Determine the proper erection and use of wooden and prefabricated metal scaffolding to include the following: • Pole scaffolds • Swinging scaffolds • Prefabricated metal scaffolds • Bracket scaffolds • Scaffold safety
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Code of Federal Regulations, 29 CFR 1926, Subpart L
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the erection, use, and safety requirements of the different scaffolding systems.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform prestart checks, operator maintenance, and operate field type construction equipment
Knowledge you should have to perform this skill:	Recall the requirements for use of construction equipment used in the NCF to include the following: • Water pumps • Trailer mounted field saws • Cargo and light passenger vehicles
References you should study to gain the knowledge you need to perform this skill:	 Equipment Operator Basic, NAVEDTRA 12535, Chapters 6 and 14 Builder 3 & 2, Volume 1, NAVEDTRA 12520, Appendix AIII-1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing prestart checks, operator maintenance, and operation of water pumps, trailer mounted field saws, and cargo and light passenger vehicles.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maintain and inspect wire rope, fiber and synthetic lines
Knowledge you should have to perform this skill:	Recall the use and characteristics of wire rope to include the following: • Fabrication • Designation • Strength • Handling and care • Failure
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the use, breaking strength, care, fabrication, designation, and failure of fiber and synthetic lines and wire rope.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install floor coverings
Knowledge you should have to perform this skill:	Identify the common types of floor coverings and describe procedures for their placement to include the following: • Asphalt • Vinyl • Ceramic • Quarry • Hardwood • Tile grout
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different types of floor coverings, such as asphalt, vinyl, ceramic and quarry tile, hardwood flooring, and tile grout.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install interior wall coverings
Knowledge you should have to perform this skill:	Recall the procedures for the layout and installation of interior wall coverings to include the following: • Gypsum wallboard • Ceramic • Cultured marble • Plastic • Wood
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the proper procedures for the layout and installation of interior wall coverings, such as gypsum wallboard, ceramic and marble tile, plastic, and wood.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install interior finish materials
Knowledge you should have to perform this skill:	Identify the procedures for installation of interior trims, ceilings, doors, and common hardware to include the following: • Baseboards • Molding • Doors • Windows • Acoustical ceiling systems • Hardware (screws, fasteners, bolts, locksets, hinges, etc.)
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures to install baseboards, molding, doors (panel, sash, flush, solid, hollow, prehung, and metal), windows (double-hung, casement, and stationary), acoustical ceiling systems, and hardware properly.

General BU <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Cut, dress, and install glass
Knowledge you should have to perform this skill:	Identify the different types of glass, glazing materials, and the installation procedures to include the following: • Sheet • Plate • Tempered • Glare-reducing • Insulating • Laminated • Mirrors • Wood sash putty • Metal sash putty • Elastic compounds • Rubber compounds • Glazier points
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the many different types of glass and plexiglass, installation requirements and procedures, and cutting and dressing the glass.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Construct and install millwork products
Knowledge you should have to perform this skill:	Identify various types of millwork tools, products, and procedures to include the following: • Shop power tools • Portable power tools • Wood working tools • Common woods used • Lumber classifications • Various joints • Shelves • Cabinets • Plastic laminates
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about construction of millwork products and procedures, various tools used during construction, lumber classification, joints used (i.e. miter, dovetail, lapped, etc.), installation of shelves and cabinets (base and wall), and plastic laminates.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install built up roofing products
Knowledge you should have to perform this skill:	Identify the types of built-up roofs, materials, and procedures used in construction of built-up roofs to include the following: Concrete Wood Rigid insulation Shingles Corrugated roofing Roll roofing Hot tar Mop coats and gravel Drip cap Drip edge Gravel stop
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different types of roof used in built-up roofs, materials, and procedures used for each type roof.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare, use, and maintain asphalt heating kettles
Knowledge you should have to perform this skill:	Recall procedures used to operate and maintain asphalt heating kettles to include the following: • Prestart • Operator maintenance • Operation • Temperature monitoring
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operation of asphalt heating kettles, preventive maintenance, prestarts, and temperature monitoring.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install framing products for floors, walls, and ceilings
Knowledge you should have to perform this skill:	Identify the procedures and requirements for light wooden structural framing to include the following: • Joists • Bridging • Sills • Girders • Subfloors • Wall and partition members • Metal studs
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and requirements used to construct joists, bridging, sills, girders, subflooring, and wall and partition members (using wooden and metal studs).

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Frame in wall, ceiling, and floor openings
Knowledge you should have to perform this skill:	Recall the procedures to lay out, cut, fit, and install openings in framing members to include the following: • Doors • Vents • Stairwells
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the layout procedures to cut, fit, and install framing members for openings in walls, ceilings, and floors for doors, windows, vents, and stairs.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install rafters, trusses, and gable end studs
Knowledge you should have to perform this skill:	Identify the procedures to lay out, cut, and install roof framing members in different types of roofs to include the following: • Hip • Gable • Intersecting • Shed or lean-to
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different roof systems to include hips, gables, intersecting, and shed or lean-to, and construction of each system using rafters or trusses.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install and erect Advance Base Functional Components (ABFC) assemblies
Knowledge you should have to perform this skill:	Recall the requirements and procedures for the installation and use of ABFC assemblies to include the following: • Southeast Asia huts (SEAHUTs) • Strongback tents • Latrines • K-span
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 2, NAVEDTRA 12521 Facilities Planning Guide, NAVFAC P-437
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the installation and use of ABFC assemblies at different temperate zones using SEAHUTs, strongback tents, latrines, and K-span.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install brick and concrete masonry units (CMU)
Knowledge you should have to perform this skill:	Identify the requirements, procedures, tools, and materials for construction of masonry structures to include the following: • Brick type • CMU type • Load and nonload bearing wall • Control joints • Bond beam and lintel • Piers and pilasters • Reinforcement • Patching and cleaning • Course laying methods • Block saws
References you should study to gain the knowledge you need to perform this skill:	• Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and techniques used in typical masonry construction including materials, method of construction, terminology, tools, reinforcement procedures, and block saw operation.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install forms for concrete
Knowledge you should have to perform this skill:	Identify the requirements and procedures to fabricate, erect, and strip concrete forms to include the following: • Overhead • Vertical • Footing • On grade slab • Set screeds
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about fabricating, erecting, and removing concrete forms for overhead, vertical, footing, and slab construction, and setting screeds.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Erect metal buildings and structures
Knowledge you should have to perform this skill:	Explain the principles and procedures involved in the preparation and erection of preengineered metal buildings (PEB) to include the following: • Foundations • Pre-erection work • Layout • Assembly
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the principles and procedures used to erect PEBs from laying the foundation through the pre-erection work and layout to actual assembly.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and erect heavy timber structures
Knowledge you should have to perform this skill:	Identify the procedures used to construct heavy timber structures to include the following: Nomenclature Construction Substructure Superstructure Pile driving operations Pile type
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the construction of heavy timber structures using piles or abutments, the actual construction of the various structures, nomenclature, pile types, and pile driving operations.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Repair and maintain wooden, masonry, and metal structures
Knowledge you should have to perform this skill:	Identify the maintenance requirements and repair procedures for structures to include the following: • Wood • Masonry • Metal
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the maintenance and repair of wood, masonry, and metal structures using typical maintenance and repair practices within the construction industry.

General BU <i>Skill Area</i>	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Operate portable mixers
Knowledge you should have to perform this skill:	 Recall procedures for the prestart check of portable mixers Recall procedures for performing operator maintenance on portable mixers Recall procedures for operation of portable mixers
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operation and maintenance of portable mixers.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install concrete masonry units (CMUs) and use the Rule of 38 to calculate the quantities of CMUs needed for the project
Knowledge you should have to perform this skill:	Recall layout and installation procedures for CMUs and compute requirements for mix material to include mortar, stucco, and plaster
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the uses of mortar, stucco, and plaster and how to compute the quantity of material needed for a project.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install concrete and use Rule 41 and Rule 42 to compute the quantities of concrete materials needed for the project
Knowledge you should have to perform this skill:	 Compute requirements for and mix concrete for a project Recall procedures for placing, finishing, and curing concrete
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about how to use Rule 41 and Rule 42 to compute concrete requirements for a project and about placing, finishing, and curing concrete.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Use construction math
Knowledge you should have to perform this skill:	Perform calculations for construction projects to include the following: Cubic volume of cylinders, rectangles, etc. Square area of circles, rectangles, etc. Board feet for lumber Ratio and proportion
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about using construction math in planning, estimating, material ordering, and daily project use.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Use concrete saws and finishing tools and machines
Knowledge you should have to perform this skill:	Perform operator maintenance and use concrete finishing tools and machines to include the following: Concrete saw Concrete finisher Concrete tool kit
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing prestarts, operator maintenance, and operations of concrete saws and finishers, and concrete tool kit contents and usage.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Layout and install exterior finish products
Knowledge you should have to perform this skill:	Explain the procedures and requirements for installation of exterior finish products to include the following: • Corner boards • Siding • Open cornice • Closed cornice
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect question about the layout procedures, cutting, fitting, and installation of corner boards, siding (wood, metal, and composition), stucco (over wire laths and masonry), and open and closed cornices.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare and apply protective coatings
Knowledge you should have to perform this skill:	Recall procedures used to apply protective coatings on construction materials and projects to include the following: • Wood preservatives • Metal surfaces • Wood surfaces • Masonry surfaces
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the preparation and application of wood preservatives, protective coatings on wood, metal, and masonry surfaces and the characteristics of the different types of coating materials used in the NCF.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Use painting equipment
Knowledge you should have to perform this skill:	Explain the operation and maintenance of paint tools and equipment to include the following: • Paint roller • Paint roller sleeve • Paint brush • Spray painting equipment
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the operation and maintenance of all painting equipment, different uses of the equipment, and cleaning of the equipment.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Administer first aid under combat situations
Knowledge you should have to perform this skill:	Identify the procedures to administer first aid to include the following: CPR Treatment for shock Abdominal thrust for choking Treatment for heat exposure Treatment for fractures
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about general first- aid rules, CPR, abdominal thrust, artificial ventilation, controlling bleeding, symptoms and treatment for shock, exposure, fractures, and burns.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform ambush countermeasures
Knowledge you should have to perform this skill:	Describe countermeasures to include the following: • Near ambush • Far ambush • Defensive countermeasures • Evasion
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about counter ambush drills for near or far ambush, ambush right or left, and actions in and out of the killing zone.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform survival, evasion, resistance, and escape procedures
Knowledge you should have to perform this skill:	Identify the procedures for survival, evasion, resistance, and escape to include the following: • Edible and harmful food • Location of the enemy • Travel tips • Best time to escape • SAVE, ADD TO, TAKE CARE OF (SAT)
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the types of edible food and cooking procedures, water supply and purification, methods of evasion, when and how to travel, what routes to take, and what to do if captured.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform prisoner of war (POW) handling procedures
Knowledge you should have to perform this skill:	Identify POW handling procedures to include the following: Transportation Search Care and feeding Treatment Laws of conflict 6 S's
References you should study to gain the knowledge you need to perform this skill:	 U.S. Naval Laws of Armed Conflict, NAVEDTRA 112-A Combat Skills of the Soldier, FM 21-75
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the transportation, searching, care and feeding, and treatment of POWs, laws of conflict, and the 6 S's.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install wire entanglements
Knowledge you should have to perform this skill:	Identify the procedures for placement of wire entanglements to include the following: • Protective wire • Tactical wire • Supplemental wire
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about protective, tactical, and supplemental wire entanglements to include the purpose, tools and equipment, and safety requirements used when laying wire entanglements.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform chemical, biological, and radiological (CBR) defensive measures
Knowledge you should have to perform this skill:	Identify CBR defensive measures to include the following: • Protective measures before, during, and after an attack • Protective equipment • Detection equipment • Decontamination equipment
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different types of CBR agents, the effects, detection and identification, symptoms of infection, protective measures and equipment, first aid and self aid, detection and decontamination equipment, mission-oriented protective posture (MOPP) procedures, and marking of the contaminated area.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform the duties of grenadier
Knowledge you should have to perform this skill:	 Identify the duties of a grenadier to include the following: Know the characteristics of the M-203 grenade launcher Know the types of ammunition for the M-203 grenade launcher Safety precautions Responsibilities
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about squad position, the ammunition used, operation of the weapon, parts and safety procedures of the M-203 grenade launcher.

General BU <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform the duties of a machine gun team gunner
Knowledge you should have to perform this skill:	Identify the duties of a machine gun team gunner to include the following: Types of machine guns Characteristics Ammunition Positioning Safety precautions
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the general information on the three types of machine guns (M-60, MK19 MOD3 40mm, M2HB 50 cal), rates of fire, maximum ranges, collateral equipment, assembly and disassembly, types of ammunition, positioning for a defensive posture, and all safety precautions related to these weapons systems.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform the duties of an antitank team gunner
Knowledge you should have to perform this skill:	Identify the duties of antitank team gunner to include the following: • Weapons system • Characteristics • Positioning • Safety precautions
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the characteristics of the 84mm AT4, sighting, controls, operations, target engagement, firing positions, safety precautions, and misfire procedures.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of a fire team automatic rifleman
Knowledge you should have to perform this skill:	Identify the duties and responsibilities of the automatic rifleman to include the following: • Fire team position and duties
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the position of the automatic rifleman within the fire team and weapon employment.

General Bu <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform land-based combat duties under CBR conditions
Knowledge you should have to perform this skill:	Identify the different CBR conditions to include the following: • MOPP levels • Effectiveness
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the four MOPP levels, who initiates the MOPP levels and when, and effectiveness while in MOPP gear.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Place trip flares and other warning devices
Knowledge you should have to perform this skill:	Identify the procedures for placing trip flares to include the following: Types of trip flares Where to place trip flares Safety precautions
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the types, uses, placement, and safety of trip flares.

General Bu <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform booby trap countermeasures
Knowledge you should have to perform this skill:	Describe booby traps and countermeasures to include the following: • Explosive devices • Non-explosive devices • Deadfalls
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different explosive and non-explosive booby traps, identification, location, and convoy procedures.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Transport personnel injured in combat
Knowledge you should have to perform this skill:	Identify the procedures for transportation of the sick or injured in combat conditions to include the following: • Litters • Other methods of carrying a casualty
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different types of litters and other methods of carrying a casualty.

General BU <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform minor repairs on tactical field telephones
Knowledge you should have to perform this skill:	Recall the procedures to repair and maintain tactical field phones to include the following: TA-312/PT telephone TA-1/PT telephone SB-22 switchboard
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedure to install a TA-312, TA-1, and SB-22 switchboard, splicing WD-1 communication wire, and changing the batteries.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform the duties of fire direction control (FDC) plotter
Knowledge you should have to perform this skill:	State the procedures for plotting targets using the M17 plotting board to include the following: Call for fire Adjust fire to target
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the use of the M17 plotting board, computing fire data from a forward observer or other sources of information.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform the duties as a mortar platoon assistant gunner
Knowledge you should have to perform this skill:	Identify the procedures and requirements for operation of a 60mm mortar to include the following: • Setting the 60mm mortar • Sighting in the 60mm mortar • Loading and firing the 60mm mortar • Misfires
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different assemblies and components, firing modes, types of ammunition and their uses, preparing the ammunition for firing, fire commands, methods of laying the mortars, procedures for handling misfires, and cleaning the mortar after firing.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform field sanitation
Knowledge you should have to perform this skill:	Recall the requirements for field sanitation to include the following: • Latrines • Water treatment • Immersion heaters
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different types of latrines, requirements and proper ways to abandon latrines after use, methods of water treatment used for drinking, and how to set up immersion heaters for mess kit washing.

General BU <i>Skill Area</i>	Graphics
A <i>skill</i> you are expected to perform from the General Skill Area above:	Draw simple shop drawings and sketches
Knowledge you should have to perform this skill:	Explain the procedures for drawing shop drawings and sketches to include the following: Types Shapes and symbols Line definitions and use
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Engineering Aid Basic, NAVEDTRA 10696- A
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different types of simple drawings (orthographic projection, first angle projection, etc.), sketches (simple, isometric, etc.), shapes and symbols used, and line definitions and uses.

Part 2

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Work from construction drawings and specifications
Knowledge you should have to perform this skill:	Identify different types of drawings and specifications to include the following: Construction drawings Shop drawings Sketches NAVFAC specifications NAVFACENGCOM specifications EFD Regional Guide specifications Standard specifications Specification organization
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Engineering Aid Basic, NAVEDTRA 10696- A
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about different types of drawings, parts of each drawing (site plan, plot plan, foundation plan, floor plan, elevations, framing plans, etc.), different specifications used in the NCF, and organization of the specifications.

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare data for project progress charts
Knowledge you should have to perform this skill:	Prepare and use data for Level III and precedence diagrams to include the following: • Manpower estimates • Activity estimates • Network analysis
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Seabee Planner's and Estimator's Handbook, NAVFAC P-405
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about manpower and activity estimates, and network analysis using the construction management system and critical path method.

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare time cards
Knowledge you should have to perform this skill:	Identify the procedures used to develop an accurate time card and the submission process to include the following: • Labor codes • Timekeeper • Reporting requirements
References you should study to gain the knowledge you need to perform this skill:	 Procedures for Naval Mobile Construction Battalion Timekeeping, COMSECONDNCB/COMTHIRDNCBINST 5312.1 Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to develop time cards, the submission process, the reporting requirements using correct labor codes, responsibility for processing time cards (company and battalion), and the typical uses of time cards (SITREP's, man-day expenditure, etc.).

General BU Skill Area	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review material requirements at the department/company level
Knowledge you should have to perform this skill:	Prepare and review material requirements for construction projects to include the following: • Estimating worksheet • Material takeoff (MTO) sheet • Bill of Materials (BM) • BM comparison sheet
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Seabee Crew Leaders Handbook
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the differences, preparation, and uses of estimating worksheets, MTOs, BMs, and BM comparison sheets. You can also expect questions about the procedures of ordering and receiving materials for project use.

General BU Skill Area	Environmental Protection
A <i>skill</i> you are expected to perform from the General Skill Area above:	Update and maintain safety data sheet files
Knowledge you should have to perform this skill:	Identify hazardous material (HAZMAT) storage requirements to include the following: • Material Safety Data Sheet (MSDS) • Hazardous material identification and labeling
References you should study to gain the knowledge you need to perform this skill:	Military Requirements for PO3, NAVEDTRA 12044, Chapter 7
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about hazardous material storage, handling, MSDSs, and HAZMAT identification and labeling.

General BU Skill Area	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct concrete foundation and slab layout for pre-engineered buildings (PEBs)
Knowledge you should have to perform this skill:	Identify the procedures and requirements used in forming foundation and slabs for PEBs to include the following: • Construction math to include the Pythagorean Theorem (A ² +B ² =C ²) • Batter boards to locate building lines • Anchor bolt layout and sizes
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures for forming foundations and slabs for PEBs and also the requirements for setting batter boards, and anchor bolt layout and sizes.

General BU Skill Area	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform precast operations
Knowledge you should have to perform this skill:	Recall procedures for establishing and operating precast yards to include the following: • Location • Casting • Forms • Bond-breaking agents • Reinforcement • Pouring, finishing, and curing
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and requirements used in establishing and operating a precast yard by determining locations, casting methods, forming, use of bond-breaking agents, reinforcement and pouring, finishing, and curing requirements.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct and coordinate installation of Advanced Based Functional Component (ABFC) assemblies
Knowledge you should have to perform this skill:	Recall the characteristics, uses, and procedures used in the erection of advanced based structures to include the following: • Wood framed tents • Southeast Asia huts (SEAHUTS) • Field latrines • K-spans • Camps • Other
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 2, NAVEDTRA 12521 Facilities Planning Guide (all volumes), NAVFAC P-437
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the characteristics, uses, and procedures used in the erection of advanced based structures to include wood framed tents, SEAHUTS, field latrines, K-spans, camps, and any other assembly listed in the NAVFAC P-437.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct crews in the layout and erection of pre-engineered buildings (PEBs)
Knowledge you should have to perform this skill: References you should study to gain the knowledge you	Recall the principles and procedures involved in the erection of PEBs to include the following: Component parts Working drawings Erection Layout Exterior assembly Interior assembly Builder 3 & 2, Volume 2, NAVEDTRA 12521
need to perform this skill: Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the erection of PEBs by identification of component parts, reading the working drawings, knowing standard erection practices, and building layout. You will also need to know the differences in the exterior assembly parts (walls, doors, windows, roof, etc.) and interior assembly parts (liner panels, base furring, vertical furring, sidewall and ceiling furring, trim, etc.).

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct the layout and erection of heavy timber structures
Knowledge you should have to perform this skill:	Identify the structural parts of and recall the erection procedures for heavy timber structures to include the following: • Bridges • Piers • Dolphins
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the identification of parts and erection procedures for heavy timber structures to include trestle bent construction, abutments, bracing, footings, girders, posts, sills, and the differences between the superstructure and the substructure.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct the layout for installation of exterior finish materials
Knowledge you should have to perform this skill:	Recall the procedures for installation of exterior finish materials to include the following: • Siding • Stucco • Paint • Gutters
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to install wood or vinyl siding, stucco, or paint on exterior walls, and the installation of gutters and downspouts.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct layout for concrete masonry units (CMU) and brick construction
Knowledge you should have to perform this skill:	Recall the requirements and components of CMU and brick construction to include the following: • Sizes and shapes • Mortar joints • Modular planning
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the many sizes and shapes of CMU and brick, mortar joint requirements, modular planning, and chasing the bond (actual layout before placing mortar).

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct layout for concrete form installations
Knowledge you should have to perform this skill:	Recall the installation requirements for the various types of concrete forms and causes of their failure to include the following: • Earth • Metal • Wood • Fiber • Fabric • Foundations • Walls • Roofs • Columns • Form failure
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about concrete form installation, type, uses, construction, and causes of failure.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct layout for installation of interior finish materials
Knowledge you should have to perform this skill:	Describe the various types of interior finish materials and layout procedures to include the following: • Floors • Walls • Ceilings
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the various types of interior finish materials and layout procedures for floors, walls, and ceilings.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct layout for installation of light frame construction
Knowledge you should have to perform this skill:	Recall the procedures for installation of light framed construction to include the following: • Layout • Anchor bolts • Floors • Walls • Roofs • Openings
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the layout and installation procedures for light framed construction to include anchor bolts, floors, walls, roofs, and openings for doors, windows, stairs, chimneys, etc.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Install prefabricated stairs
Knowledge you should have to perform this skill:	Recall the procedures to install prefabricated stairs to include the following: • Interior • Exterior • Simple • Finished
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures to install prefabricated stairs, and the differences between interior and exterior, and simple and finished stairways.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Analyze paint failures
Knowledge you should have to perform this skill:	Recall the common types of coating failures and recognize the reasons for each to include the following: • Alligatoring • Peeling • Blistering • Crawling • Wrinkling • Chalking • Checking • Cracking
References you should study to gain the knowledge you need to perform this skill:	• Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about analyzing paint failures and what causes alligatoring, peeling, blistering, crawling, wrinkling, chalking, checking, and cracking.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Erect precast buildings
Knowledge you should have to perform this skill:	Recall the procedures used for erection of precast buildings to include the following: • Lifting equipment and attachments • Point pickup methods • Erecting, bracing, and joining panels
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to erect precast buildings by knowing what lifting equipment and attachments are needed, what the point pickup methods are, and how to erect, brace, and join panels.

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Construct waterfront structures
Knowledge you should have to perform this skill:	Recall the procedures used to construct waterfront structures to include the following: • Breakwaters • Jetties • Seawalls • Groins • Bulkheads • Cofferdams • Caissons
References you should study to gain the knowledge you need to perform this skill:	• Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the construction of waterfront structures, offshore (breakwaters and jetties), alongshore (seawalls, groins, and bulkheads), wharfages, and below the water table (cofferdams and caissons).

General BU Skill Area	Construction Operations
A <i>skill</i> you are expected to perform from the General Skill Area above:	Determine safe working loads and mechanical advantages
Knowledge you should have to perform this skill:	Compute the safe working loads and mechanical advantage of various equipment to include the following: • Hoists • Wire rope • Fiber lines • Shear legs • Blocks and tackles • Simple lifting devices
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Steelworker, Volume 2, NAVEDTRA 12530, Chapters 4, 5, and 6
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about computing the safe working load of hoists, wire rope, fiber lines, shear legs, blocks and tackles, and simple lifting devices. You can also expect questions about computing the mechanical advantage of block and tackle arrangements.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Conduct patrols
Knowledge you should have to perform this skill:	Recall the procedures used to conduct patrols to include the following: Planning and preparation Classification Mission Size Formation Control Security Movement Execution of mission
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to conduct patrols, such as planning and preparation, patrol classification, mission, size, formation, control, security, movement, and execution of mission (before, during, and after).

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of fire team leader
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of a fire team leader to include the following: • Mission • Defensive position • Fire plans • Movement • Formation
References you should study to gain the knowledge you need to perform this skill:	 Seabee Combat Handbook, Volume 1, NAVEDTRA 12003 Seabee Combat Handbook, Volume 2, NAVEDTRA 12004
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties of a fire team leader, the mission, positioning of a fire team on the FLOT, fire plans, movements, and formations.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of machine gun team leader
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of a machine gun team leader to include the following: • Weapon characteristics • Weapon placement • Fire plan • Fire command • Fire control • Fire discipline • Fire distribution • Fire technique • Team member responsibility
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about performing the duties and responsibilities of a machine gun team leader on the characteristics and placement of the weapon, fire plans, fire commands, fire control, fire discipline, fire distribution, fire technique, and the responsibility of each member of the fire team.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of antitank team leader
Knowledge you should have to perform this skill:	State the duties and responsibilities of an antitank team leader to include the following: • Weapon characteristics • Employment • Operation • Safety
References you should study to gain the knowledge you need to perform this skill:	 Seabee Combat Handbook, Volume 1, NAVEDTRA 12003 Seabee Combat Handbook, Volume 2, NAVEDTRA 12004
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of an antitank team leader, weapon characteristics, employment and operation of the weapon, and weapon safety.

General BU <i>Skill Area</i>	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Employ claymore mines
Knowledge you should have to perform this skill:	Recall the procedures used for employment of the M18A1 claymore mine to include the following: Countermeasures Coverage and methods of fire Firing device Installation and firing
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about employment of the M18A1 claymore mine, its nomenclature, countermeasures, coverage and methods of fire, firing device, and installation and firing.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Position perimeter guards
Knowledge you should have to perform this skill:	Recall requirements for the positioning of perimeter guards
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements for the positioning of perimeter guards.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Lay out protective and tactical wire entanglements
Knowledge you should have to perform this skill:	Recall the requirements and procedures used in placing protective and tactical wire entanglements to include the following: • Supplementary • Depth • Effectiveness • Uses • Barbed wire • Concertina fencing • Barbed steel tape • Placement
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures used in placing protective and tactical wire entanglements, supplementary wire, depth, effectiveness, uses, and different wire used, such as placing barbed wire, concertina wire, and barbed steel tape.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Lay out trip flares and other warning devices
Knowledge you should have to perform this skill:	Recall the requirements and procedures for the setting of trip flares and warning devices to include the following: • Purpose • Location • Explosive devices • Nonexplosive devices • Countermeasures
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about trip flares and warning devices, their uses, location, explosive and nonexplosive devices, and countermeasures.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of mortar crew leader/gunner
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of mortar crew leader and gunner to include the following: • Description and characteristics of the 60mm mortar • Assemblies and components • Ammunition • Equipment • Positioning • Preparation for firing • Sighting • Loading and firing • Safety
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of a mortar crew leader or gunner, description and characteristics of the weapon, assemblies and components, ammunition, equipment, positioning, preparation for firing, sighting, loading and firing, and safety.

General BU Skill Area	Construction Combat Readiness
A <i>skill</i> you are expected to perform from the General Skill Area above:	Maneuver fire team using arm and hand signals
Knowledge you should have to perform this skill:	Recall the procedures to maneuver fire teams using arm and hand signals to include the following:
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about maneuvering fire teams using arm and hand signals, and fire team positions.

General BU Skill Area	Graphics
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare field adjustment requests (FARS)
Knowledge you should have to perform this skill:	Recall requirements and procedures for the preparation of FARS to include the following: • Description of changes • Routing
References you should study to gain the knowledge you need to perform this skill:	• Seabee Crew Leaders Handbook, Chapter 14
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements, description of changes, and routing of FARS.

General BU Skill Area	Graphics
A <i>skill</i> you are expected to perform from the General Skill Area above:	Plan construction equipment and material usage through drawing and specification analysis
Knowledge you should have to perform this skill:	Recall the standards for planning equipment and material usage using drawings and specification analysis to include the following: • Need for accuracy • Checking estimates • Estimating worksheets • Table of Allowance (TOA) • Equipment characteristics • Production Efficiency Guide Chart
References you should study to gain the knowledge you need to perform this skill:	Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about planning equipment and material usage and the need for accuracy, estimate checks and balances, estimating worksheets, TOA, equipment characteristics, and determining production efficiency and delay factors.

Part 3

General BU Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Conduct Personnel Readiness Capability Program (PRCP) Interviews
Knowledge you should have to perform this skill:	Recall procedures for conducting PRCP interviews to include the following: • Skill inventory • Skill definitions • Task analysis • Standard and guides (PRCP and individual) • Interview type
References you should study to gain the knowledge you need to perform this skill:	Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about conducting PRCP interviews using skill inventories, skill definitions, task analysis, standard and guides, and knowing the difference between the types of interviews.

General BU Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Maintain project packages
Knowledge you should have to perform this skill:	Recall requirements and procedures for maintaining project packages to include the following: • Red line drawings • Progress charts • Network analysis
References you should study to gain the knowledge you need to perform this skill:	Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the preparation and maintenance of project packages, updating and maintaining red line drawings, updating progress charts, and network analysis.

General BU Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Organize site deployment and utilization of tools, materials, and equipment
Knowledge you should have to perform this skill:	Recall the procedures used to organize a site deployment to include the following: • Planning • Organizing • Coordinating • Production • Safety
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543, Chapter 2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to organize site deployment and utilization of tools, materials, and equipment through planning (manpower, equipment, tools, and supplies), organizing (analyze the requirements of the job), coordinating (work, schools, liberty etc.), production, and safety.

General BU Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Coordinate and evaluate labor reporting data
Knowledge you should have to perform this skill:	Recall the procedures for coordinating and evaluating labor reporting data to include the following: Time cards Situation reports (SITREPs) Work-in-place (WIP) Bar charts updating Project photos
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543, Chapter 2
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about coordinating and evaluating labor reporting data through the use of time cards, SITREPs, WIP, bar chart updates, and project photos.

General BU Skill Area	Technical Administration
A skill you are expected to perform from the General Skill Area above:	Determine requirements for advance base planning
Knowledge you should have to perform this skill:	Recall the procedures and requirements for advance base planning to include the following: • Facilities Planning Guide • Tailoring the components and facilities • Use and application of the Facilities Planning Guide • Embarkation
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543, Chapter 4
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about determining the procedures and requirements for advance base planning. You will need to know the Facilities Planning Guide, how to tailor the components and facilities, the use and application of the Facilities Planning Guide, and embarkation.

General BU Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Perform as shop planner/maintenance scheduler
Knowledge you should have to perform this skill:	Recall the use of and routing procedures for job orders to include the following: • Work generation • Work classification • Planning and estimating • Shop scheduling • Management reporting
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543, Chapter 9
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	 You can expect questions about how to prepare, use, and route job orders that include the following: work generation (inventory, customer requests, and continuous inspections system) work classification (emergency work, service work, minor work, specific jobs, standing jobs, and rework) planning and estimating (planning for technical jobs and estimating the number of man-hours needed to complete the maintenance work) shop scheduling (master scheduling and work center scheduling)

General BU Skill Area	Management and Supervision
A skill you are expected to perform from the General Skill Area above:	Review unit's work capabilities and recommend training
Knowledge you should have to perform this skill:	Describe the unit's work capabilities and the procedures used to recommend training to include the following: • Training organization • Training guidelines • Training needs • On-the-job training (OJT) • Systematic training
References you should study to gain the knowledge you need to perform this skill:	Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about reviewing and determining a unit's work capabilities and procedures used to recommend training. You will also need to be knowledgeable of the training organization, training guidelines, training needs, OJT, and systematic training.

General BU Skill Area	Environmental Protection
A skill you are expected to perform from the General Skill Area above:	Monitor environmental protection programs
Knowledge you should have to perform this skill:	Evaluate environmental protection programs for compliance to include the following: • Environmental pollution • Water pollution • Ground pollution • Air pollution • Solid waste • Pollution impact areas
References you should study to gain the knowledge you need to perform this skill:	 Builder Advanced, NAVEDTRA 12569 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543, Chapter 7
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about environmental protection programs and compliance procedures, environmental, ground, and air pollution, solid wastes, and pollution impact areas.

General BU Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Perform facilities/maintenance inspections
Knowledge you should have to perform this skill:	Identify defects and findings associated with inspections and maintenance inspections of naval facilities and structures to include the following: • Foundations • Basic supporting members • Floors and stairs • Exterior walls • Interior walls and partitions • Ceilings • Roofs • Waterfront structures • Concrete structures • Steel structures • Wood structures • Stone, masonry, and earth structures
References you should study to gain the knowledge you need to perform this skill:	Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about identifying defects and damages associated with inspection and maintenance of foundations, basic support members, floors and stairs, walls (exterior and interior), partitions, ceilings, roofs, and waterfront, steel, wood, stone, masonry, and earth structures.

General BU Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Direct construction of advanced base structures
Knowledge you should have to perform this skill:	Recall the procedures for constructing field structures and repairing war damaged structures during contingency operations to include the following: • Field structures (SEAHUTS, strong backs, troop housing etc.) • K-spans • Towers and bunkers • Airfields • Operational facilities • POL pipelines • Fuel storage areas • Fleet hospital facilities • Piers and wharf facilities • Railroad facilities (to support fleet operations) • Communication facilities
References you should study to gain the knowledge you need to perform this skill:	 Builder Advanced, NAVEDTRA 12569 Naval Facilities Planning Guide, NAVFAC P-437 OPNAVINST 3501.115, Required Operational Capabilities, Projected Operating Environment (ROC/POE)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to construct field structures, K-spans, and towers and bunkers, and repair war damaged structures and facilities, such as airfields, operational facilities, POL pipelines, fuel storage areas, fleet hospital facilities, railroad

facilities, and communication facilities.

General BU Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Direct concrete construction operations
Knowledge you should have to perform this skill:	Recall different characteristics associated with concrete form design, concrete mix design, and batching to include the following: • Safety • Type and quantity of concrete admixture • Formwork • Loads • Pressure • Rate of placement
References you should study to gain the knowledge you need to perform this skill:	Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the different characteristics of concrete form and mix design, batching, use of admixtures, safety, loads and pressure, and rate of placement.

General BU Skill Area	Construction Support
A skill you are expected to perform from the General Skill Area above:	Establish and operate precast yards
Knowledge you should have to perform this skill:	Identify the procedures and methods associated with precast construction to include the following: • Advantages of precast concrete • Prestressed concrete • Special types of concrete • Tilt-up construction
References you should study to gain the knowledge you need to perform this skill:	Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and methods used in precast construction, the advantages of precast concrete, prestressed concrete, special types of concrete, and tilt-up construction.

General BU Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct hoisting operations
Knowledge you should have to perform this skill:	Recall the procedures and principles used to perform hoisting operations to include the following: Cranes Gin poles Tripods Shears
References you should study to gain the knowledge you need to perform this skill:	 Steelworker, Volume 2, NAVEDTRA 12530, Chapter 6 Equipment Operator Basic, NAVEDTRA 12535, Chapter 12
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the principles and procedures for safe hoisting and lifting using cranes, gin poles, tripods, and shears. You can also expect questions about block-andtackle arrangements, slings, safe working loads (rope, slings), chains, hooks, and shackles.

General BU Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct shoring operations
Knowledge you should have to perform this skill:	Recall the procedures used to perform shoring operations safely to include the following: • Protection of employees • Design of sloping and benching systems • Design of support, shield, and protective systems • Materials and equipment
References you should study to gain the knowledge you need to perform this skill:	• Code of Federal Regulations, 29 CFR 1926, Subpart P, 1926.652 and 1926.703 (b)
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about safely directing crews in shoring operations, who is qualified to design shoring or bench soil, and the proper installation of shoring.

General BU Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct pile driving operations
Knowledge you should have to perform this skill:	Direct crews in the construction and installation of piles to include the following: Bearing piles Sheet piles Pile driver operations Pile driving hammers Pile driving caps Pile safety Crane safety Pile characteristics
References you should study to gain the knowledge you need to perform this skill:	Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about typical pile construction, installation, different types of piles used, pile driving hammers, pile and crane safety, and pile characteristics.

General BU Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct teams/crews in construction of wood, masonry, and metal structures
Knowledge you should have to perform this skill:	Direct personnel in the construction of wood, masonry, and metal structures to include the following: • Substructures • Superstructures
References you should study to gain the knowledge you need to perform this skill:	 Builder Advanced, NAVADTRA 12569 Builder 3 & 2, Volume 1, NAVEDTRA 12520 Builder 3 & 2, Volume 2, NAVEDTRA 12521
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about leading teams in the construction of wood, metal, and masonry structures including the foundations, walls (interior and exterior), floors, ceilings, roofs, gutters, and so forth.

General BU Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Establish and direct operations of shops
Knowledge you should have to perform this skill:	Establish and direct operations of shops engaged in fabrication and assembly of cabinets and millwork to include the following: • Purpose of the shop • Arrangement of the shop • Cabinetmaking • Millworking • Laminates
References you should study to gain the knowledge you need to perform this skill:	 Builder Advanced, NAVEDTRA 12569 Builder 3 & 2, Volume 1, NAVEDTRA 12520
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about establishing and directing personnel in typical shop setup and operations, the purpose and arrangement of a shop, cabinetmaking, millwork products, and the use of laminates.

General BU Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct the repair of foundations and structures
Knowledge you should have to perform this skill:	Direct crews and teams in the repair of defects and damages to foundations and structures to include the following: • Foundation displacement/deterioration • Structure cracks • Water damage • Wood decay • Concrete dusting/spalling • Masonry failures • Other
References you should study to gain the knowledge you need to perform this skill:	Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the repair of foundations and structures ranging from foundation deterioration to structural roofs.

General BU Skill Area	Construction Operations
A skill you are expected to perform from the General Skill Area above:	Direct layout and construction of waterfront structures
Knowledge you should have to perform this skill:	Direct the layout and construction of waterfront structures to include the following: • Breakwaters • Jetties • Seawalls • Bulkheads
References you should study to gain the knowledge you need to perform this skill:	 Builder 3 & 2, Volume 2, NAVEDTRA 12521 Builder Advanced, NAVEDTRA 12569
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about actual layout and construction of rubble-mound, composite, or caisson breakwaters or jetties, inclined-face, curved face, stepped face, or combination curved and stepped face concrete seawalls, and bulkheads.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Prepare rough maps, field sketches, and overlays
Knowledge you should have to perform this skill:	Recall procedures for the preparation and use of rough maps, field sketches, and overlays to include the following:
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the preparation and typical use of maps, field sketches, and overlays utilizing cover and concealment, showing obstacles and how to overcome them, avenues of approach, panoramic and topographic sketches and maps, and overlay requirements.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform the duties as rifle squad leader
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of a rifle squad leader to include the following: Ideal squad composition Discipline Appearance Training Control Squad conduct Weapons Equipment
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the rifle squad leader, the ideal number of personnel assigned, discipline, appearance, squad training, control, conduct, weapons, equipment, fire control, fire discipline, and squad movement.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of the rifle platoon guide
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of the rifle platoon guide to include the following: • Administration • Supply and timely resupply • Casualty record
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the rifle platoon guide, administration, supply, timely resupply, casualty reporting, and weapon assignment.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of the rifle platoon petty officer
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of a rifle platoon petty officer to include the following: • Assistant to the platoon commander • Squad position • Weapons qualification
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the rifle platoon petty officer, squad position, and weapons qualification. As assistant to the platoon commander he or she must also know the responsibilities of the platoon commander and act as platoon commander in his or her absence.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of the machine gun squad leader
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of the machine gun squad leader to include the following: • Selection and assignment of positions and targets • Weapons qualification
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the machine gun squad leader, selecting and assigning positions, and targets and weapons qualifications. His or her duties are also basically that of the rifle squad leader.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of the antitank squad leader
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of the antitank squad leader to include the following: • Basic duties • Selection and assignment of positions and targets • Weapons qualification • Other equipment
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the antitank squad leader, the basic duties, selection of and assignment of positions and targets, weapons qualification, and other assigned duties.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Perform duties of the weapons platoon petty officer
Knowledge you should have to perform this skill:	Recall the duties and responsibilities of the weapons platoon petty officer
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the duties and responsibilities of the weapons platoon petty officer, weapons qualification, and other duties such as those described by the rifle platoon petty officer.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Direct installation of protective and tactical wire entanglements
Knowledge you should have to perform this skill:	Recall the requirements for placing protective and tactical wire entanglements to include the following: • Uses • Construction • Types • Classification
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the installation of protective and tactical wire entanglements, their uses, construction, types, and classification.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Direct installation of trip flares and other warning devices
Knowledge you should have to perform this skill:	Recall requirements for placement of trip flares and other warning devices to include the following: • Grenades • Claymore mines • Trip flares • Booby traps • Explosive and nonexplosive devices • Countermeasures
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and uses for placing trip flares and other warning devices, such as grenades, claymore mines, booby traps, explosive and nonexplosive devices, and countermeasures.

General BU Skill Area	Construction Combat Readiness
A skill you are expected to perform from the General Skill Area above:	Direct placement of aiming stakes
Knowledge you should have to perform this skill:	Explain the purpose for the use of aiming stakes to include the following: • Limits • Night fire
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 1, NAVEDTRA 12003
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the proper uses of aiming stakes.

General BU Skill Area	Planning and Estimating
A skill you are expected to perform from the General Skill Area above:	Coordinate battalion project turnover
Knowledge you should have to perform this skill:	Identify the tasks required to turn over and accept a project from one battalion to another to include the following: • Predeployment trip • Advanced party (AP) • Turnover types • Joint turnover memorandum • Project status at turnover • Material status at turnover • Project percent complete • Continuity of work in place (WIP) curve
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Seabee Crew Leaders Handbook, Chapter 12
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the required procedures to turn over or accept a project from one battalion to another by knowing what to look for on predeployment trips accurately, who to send AP, the different types of turnover, joint turnover memorandums, project and material status at turnover, project percent complete, and the continuity of the WIP curve.

General BU Skill Area	Planning and Estimating
A skill you are expected to perform from the General Skill Area above:	Provide technical assistance on construction techniques
Knowledge you should have to perform this skill:	Recall the requirements for providing technical assistance on construction techniques and management to include the following: • Actual construction • Quality control (QC) • Material management • Equipment management • Training • Field adjustment request/design change directives (FAR/DCD) • Engineering service requests (ESR) • Concrete placement clearance forms • Asphalt placement clearance forms • Utility interruption requests • Site layout/organization checklists
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about all the skills required to provide maximum technical assistance on a construction project.

Part 4

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Utilize Personnel Readiness Capability Program (PRCP) data and determine training activities
Knowledge you should have to perform this skill:	Recall the procedures used to determine training requirements utilizing PRCP data to include the following: • PRCP Program • PRCP Standards and Guides • Training guidelines • Training needs
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 PRCP, NAVFAC P-458, Volume II, Standards and Guides Naval Construction Force Manual, NAVFAC P-315, Chapter 5
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements, procedures, and utilization of PRCP data and training guidelines to determine unit's training activities.

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Organize and control deployment of materials and equipment
Knowledge you should have to perform this skill:	Recall the procedures for organizing and controlling deployment of materials and equipment to include the following: • Preconstruction conferences (PRECON) • Predeployment trip • Material liaison office (MLO) • Project status reports/project control reports (PSR/PCR)
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Naval Construction Force Manual, NAVFAC P-315, Chapter 7
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements and procedures used to organize and control deployment of materials and equipment utilizing PRECONs, predeployment trip reports, the MLO staff, and PSRs/PCRs.

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare and maintain Level I and II project progress charts
Knowledge you should have to perform this skill:	Recall the procedures for preparing and maintaining Level I and II project progress charts to include the following: • Project planning • Man-day calculations • Man-day expenditures • Situation reports (SITREPs) • Completion percentages (actual versus plotted)
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Seabee Planner's and Estimator's Handbook, NAVFAC P-405 Seabee Crew Leaders Handbook
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about preparation and maintenance of Level I and II progress charts through correct project planning, calculating man-day requirements and expenditures, SITREP input, and completion percentages.

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct the operation and maintenance of utilities under cognizance of Public Works Departments (PWDs)
Knowledge you should have to perform this skill:	Recall the requirements to operate and maintain utilities under cognizance of PWDs to include the following: • Maintenance and utilities branch • Inspection programs • Facility inventory • Service work (routine/emergency)
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Inspection of Shore Facilities, MO-322, Volume 1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect question about the operation and maintenance of utilities by understanding the function of the maintenance and utilities branch, a rigorous inspection program, facility inventories, and work scheduling.

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct the repair, alteration, and maintenance of facilities under the cognizance of PWDs
Knowledge you should have to perform this skill:	Recall the requirements to direct the repair, alteration, and maintenance of facilities under cognizance of PWDs to include the following: • Facilities management engineering branch • Products division • Work generation • Work classification • Work assignment priority
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Maintenance Management of Shore Facilities, NAVFAC MO-321
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements to direct the repair, alteration, and maintenance of facilities, the function of the facilities management branch and products division, work generation, classification, and assignment priority.

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Assist in the management and operations of Public Works Departments
Knowledge you should have to perform this skill:	Recall the purpose and functions of a PWD to include the following: • Principles of PWD organization • Functions and responsibilities • Organization for contracted PWD
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Organization and Functions for Public Works Departments, NAVFAC P-318
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about assisting in the management and operations of PWDs including the principles of the organization, functions, and responsibilities, and the organization for contracted PWDs.

General BU Skill Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Implement and control utilities and energy conservation programs
Knowledge you should have to perform this skill:	Recall the requirements and techniques to implement and control utilities and energy conservation programs to include the following: • Identification • Prevention • Cleanup
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Environmental and Natural Resources Program Manual, OPNAVINST 5090.1
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and techniques to implement and control utilities and energy conservation programs, identification, prevention, and cleanup.

General BU Skill Area	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Coordinate construction tasks assigned to detachments
Knowledge you should have to perform this skill:	Recall the procedures used to coordinate construction tasks assigned to detachments to include the following: • Personnel assignments • Staffing • Project management • Tracking methods
References you should study to gain the knowledge you need to perform this skill:	 Operations Officer Handbook, COMCBPAC/COMCBLANTINST 5200.2, Chapter 3 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures used to coordinate construction tasks assigned to detachment, personnel assignments, staffing, project management, and tracking methods.

General ~ Skill Area	Management and Supervision
A <i>skill</i> you are expected to perform from the General Skill Area above:	Review material, tool, and equipment requirements at division/company levels
Knowledge you should have to perform this skill:	Recall the procedures to review material, tool, and equipment requirements at division/company levels to include the following: • Money management • Procurement • Use
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures to review material, tool, and equipment requirements, money management, procurement, and use at the division/company level.

General ~ Skill Area	Construction Support	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Supervise/coordinate preparation of material and equipment embarkation at battalion levels	
Knowledge you should have to perform this skill:	Recall the requirements to supervise/coordinate the preparation of materials and equipment embarkation at battalion levels to include the following: • Planning • Staffing • Prepositioned stocks and supplies • Loading	
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Embarkation Manual, COMSECONDNCB/COMTHIRDNCBINST 3122.1 	
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about supervising/coordinating the preparation of material and equipment at battalion levels.	

General ~ <i>Skill Area</i>	Construction Support
A <i>skill</i> you are expected to perform from the General Skill Area above:	Plan construction of Advance Base Structures
Knowledge you should have to perform this skill:	Recall the principles for planning the construction of advanced based structures to include the following: • Use of the Facilities Planning Guide
References you should study to gain the knowledge you need to perform this skill:	 Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543 Facilities Planning Guide, NAVFAC P-437
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the planning of advanced based structures including the use of NAVFAC P-437.

General ~ Skill Area	Construction Operations	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Direct and coordinate installation of Advanced Based Functional Components (ABFC)	
Knowledge you should have to perform this skill:	Recall the requirements and procedures for directing and coordinating the installation of ABFC systems to include the following: • Components • Facilities • Assemblies	
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543	
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the procedures and requirements used to direct and coordinate the installation of ABFC systems and know about the use of different components, facilities, and assemblies.	

General ~ Skill Area	Quality Assurance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Administer construction quality control programs
Knowledge you should have to perform this skill:	Recall the techniques used to administer construction quality control programs to include the following: • Quality measures • Construction methods • Evaluations • ROICC interface • Preconstruction conferences • Inspections
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the techniques used to administer construction quality control programs.

General ~ Skill Area	Construction Combat Readiness	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Perform duties of platoon commander	
Knowledge you should have to perform this skill:	Recall the responsibilities and duties of a platoon commander to include the following: Training Discipline Administration Control Tactical deployment (when required)	
References you should study to gain the knowledge you need to perform this skill:	Seabee Combat Handbook, Volume 2, Chapter 1	
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about responsibilities and duties of a platoon commander while home ported, deployed, or in a tactical environment.	

General ~ Skill Area	Planning and Estimating	
A <i>skill</i> you are expected to perform from the General Skill Area above:	Validate network analysis and construction management systems	
Knowledge you should have to perform this skill:	Recall the requirements to validate network analysis and construction management systems to include the following: • Precedence diagramming • Schedules • Bar charts • Photographic coverage • Usable completion dates (UCDs)	
References you should study to gain the knowledge you need to perform this skill:	Naval Construction Force/Seabee 1 & C, NAVEDTRA 12543	
Exam Expectations. These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the requirements to validate network analysis and construction management systems, planning and estimating, schedules, bar charts, photo coverage, and UCDs.	

Appendix 1

References Used in This Advancement Handbook

Rating	Short Title	Long Title	Chapters/ Paragraphs	Stocking Point
BU3	NAVEDTRA 12520	Builder 3&2, Volume 1	N/A	Note 1
NAVEDTRA 12521 NAVEDTRA 12014 29CFR1926 COMSECOND/COMTHIRE		Builder 3&2, Volume 2	N/A	Note 1
	NAVEDTRA 12014	Blueprint Reading and Sketching	Chaps 2,7	Note 1
	29CFR1926	Code of Federal Regulations	Subpart L	Note 2
	COMSECOND/COMTHIRD NCBINST 3122.1 series	Embark Manual	Annex C and E	Note 4
	NAVEDTRA 10696-A	Engineering Aid Basic	N/A	Note 1
	NAVEDTRA 12535	Equipment Operator Basic	Chaps 6,14	Note 1
_	NAVFAC P-437	Facilities Planning Guide	N/A	Note 5
NAVEDTRA NAVEDTRA NAVFAC P- CBPAC/LAN series	NAVEDTRA 12044	Military Requirements for PO3	Chapter 7	Note 1
		Naval Construction Force Crewleaders Handbook	N/A	Note 7
	NAVEDTRA 12003	Seabee combat Handbook, Vol.1	N/A	Note 1
	NAVFAC P-405	Seabee Planners and Estimators Handbook	N/A	Note 6
	CBPAC/LANTINST 4400.3 series	Seabee Supply Manual	N/A	Note 4
	NAVEDTRA 12530	Steelworker, Volume 2	Chaps 8	Note 1
BU2	COMSECONDNCB/COM THIRDNCBINST 5312.1 SERIES	Procedures for NMCB Timekeeping	N/A	Note 4
	NAVEDTRA 12004	Seabee Combat Handbook, Volume 2	N/A	Note 1
	NAVEDTRA 12530	Steelworker, Volume 2	Chaps 4,5,6	Note 1
BU1	29CFR1926	Code of Federal Regulations	Subpart P, 1926.652, 703(b)	Note 2
	COMCBPAC/LANTINST 5200.2 series	Operations Officer Handbook	N/A	Note 4

BU1	COMCBPAC/LANTINST	Maintenance Management	N/A	Note 4
	11014.2 series	Program for Naval		
		Construction Force Camps		
	NAVFAC P-315	Naval Construction Force	N/A	Note 7
		Manual		
	NAVFAC MO-322	Inspection of Shore	N/A	Note 1
		Facilities		
	NAVFAC P-458	Personnel Readiness	Vol. I, II	Note 5
		Capability Program		
	NAVFAC P-908	Oil Spill Control for Inland	N/A	Note 1
		Waters and Harbors		
	NAVEDTRA 12530	Steelworker, Volume 2	Chaps 6,7,8	Note 1
	NAVEDTRA 12543	Naval Construction	N/A	Note 1
		Force/Seabee 1&C		
	NAVEDTRA 12569	Builder Advanced	N/A	Note 1
	OPNAVINST 3501.115	Required Operational	N/A	Note 3
	series	Capabilities, Projected		
		Operational Environment		
	OPNAVINST 5090.1 series	Environmental and	N/A	Note 3
		Natural Resources		
		Protection Manual		
BUC	NAVFAC MO-321	Maintenance Management	N/A	Note 1
		of Shore Facilities		
	NAVFAC P-318	Organization and	N/A	Note 1
		Functions for Public Works		
		Departments		

LEGEND:

Note 1 — To order, MILSTRIP to NAVICP PHILA (Stk No. from NAVSUP P2002) or via INTERNET http://www.nll.navsup.navy.mil

Note 2 – INTERNET http://law.house.gon/4.htm

Note 3 - INTERNET http://www.neds.nebt.daps.mil/

Note 4 – Ltr request to: Commander Second Naval Construction Brigade 1310 8th Street Suite 100 Norfolk, VA 23521-2435

Note 5 – Ltr request to: Commander Civil Engineer Support Office CBC Bldg 1443 1000 23rd Avenue Port Hueneme, CA 93043-5000

Note 6 – Ltr request to: Commanding Officer (Code 662) Naval Construction Battalion Center 1000 23rd Avenue Port Hueneme, CA 93043-4301

Note 7 – Ltr request to: Naval School Civil Engineer Corps Officers 3502 Goodspeed Street, Suite 1 Port Hueneme, CA 93043-4336